

**COLORADO RIVER RECOVERY PROGRAM  
FY-2002/2003 PROPOSED SCOPE OF WORK**

Project No.: 29a

Lead Agency: Fish and Wildlife Service  
Colorado River Fishery Project

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Date: June 1, 2001

Revised date: November 19, 2001

Category

- ☐ Ongoing project
- ☒ Ongoing-revised project
- ☐ Requested project
- ☐ Unsolicited proposal

Expected Funding Source

- ☐ Annual funds
- ☐ Capital Funds
- ☐ Other
- ☒ O & M Funds

I. Title of Proposal: **Operation and Maintenance of Grand Valley Endangered Fish Facilities.**

II. Relationship to RIPRAP:

General Recovery Program Support Action Plan:

IV. Manage genetic integrity and augment or restore populations.

IV.A. Genetics Management.

IV.A.4. Secure and manage genetic stocks in refugia.

IV.A.4.a.(2) Upper Colorado River.

IV.C. Operate and maintain facilities.

IV.C.2. Grand Valley Endangered Fish Facility.

Colorado River Action Plan: Mainstem

IV.A. Augment and restore populations as needed.

IV.A.2. Monitor the fish community in the upper Colorado River (above Palisade) and develop management action plan, including recommendations for Colorado pikeminnow and razorback sucker augmentation.

IV.A.2.a. Develop augmentation plan for razorback sucker in the Colorado River in Colorado.

IV.A.2.a.(2) Implement razorback sucker augmentation plan.

Colorado River Action Plan: Gunnison River

IV.A. Augment or restore populations as needed and as guided by the Genetics Management Plan.

IV.A.1. Razorback sucker.

IV.A.1.c. Implement Colorado's stocking plan for razorback sucker.

III. Study Background/Rationale and Hypotheses

This project is directly related to Section 2.4 IV. "Conserve Genetic Integrity and Augment or Restore Populations" in the Recovery Program Recovery Action Plan (USFWS 1993). One of five elements in the Recovery Program is "native fish stocking" (USFWS 1987). The goal of this element is to produce sufficient captive-reared endangered fishes for conducting laboratory and field research and to develop brood stocks with genetic diversity similar to the wild stock used as founders (Williamson and Wydoski 1994). The need for captive-reared endangered fish and propagation facilities is identified in Wydoski (1994).

IV. Study Goals, Objectives, End Product:

Goal: To operate a genetically sound captive propagation program for high priority endangered fish species for the RIP in the Upper Colorado River Basin in accordance with the Annual Propagation Operation Plan.

Objective: Operate and maintain propagation facilities that are needed to hold, rear, or produce captive-reared endangered fishes for the RIP in the Upper Colorado River Basin in accordance with the Annual Propagation Operation Plan.

End Product: Maintenance of endangered fish in refugia to prevent extinction; development of genetically sound broodstocks for production of young fish for stocking to stabilize or enhance wild stocks; production of captive-reared endangered fish for priority laboratory and field experiments.

V. Description of Past Performance on This or Similar Projects:

Fishery biologists have cultured and reared endangered fishes in the upper basin since 1987. Propagation began in the Grand Valley in 1991 with construction of Horsethief Refugia Ponds at Horsethief State Wildlife Area. The refugia ponds were constructed to develop and hold broodstock from the last wild razorback suckers captured from the upper Colorado River. Production of razorback suckers began in 1996 when an intensive-rearing hatchery building was built. The hatchery was expanded in 1998 and is currently capable of producing about 100,000 young razorback suckers averaging 4 inches long each year. Construction and leasing of grow-out ponds have produced 30 ponds totaling 92 surface acres suitable for rearing large razorback suckers for stocking into the rivers of the upper basin. Efforts are underway to acquire even more ponds.

The first young razorback suckers produced in the Grand Valley facility were stocked into the Gunnison River in 1995. More than 33,000 razorback suckers have been stocked into the Gunnison and Colorado rivers since then. The Grand Valley facility currently has a broodstock of about 300 adults, including wild razorback suckers and their offspring from four yearclasses. Fish from younger yearclasses are also being held and will be added to the broodstock as they mature. Accurate records of lineage for all fish are maintained to ensure that the maximum amount of original genetic material is maintained in the broodstock. Spawning is controlled to ensure that equal numbers of offspring from the original, wild broodstock will be stocked into the river system over the duration of the propagation program.

VI. Study area: Upper Colorado River Basin — Propagation facilities in Colorado.

VII. Methods/Approach:

Conduct all tasks associated with the operation and maintenance of the Grand Valley Propagation Facilities in accordance with the Genetic Management Plan (Williamson and Wydoski 1994) and the annual propagation plan.

VIII. Task Description and Schedule:

All tasks are done annually

1. Develop and maintain captive razorback sucker broodstock.
2. Spawn razorback sucker broodstock and produce family lots for culture at the 24 Rd Hatchery.
3. Intensively rear razorback sucker at the 24 Rd Hatchery.
4. Stock 4-inch-long razorback suckers into grow-out ponds in spring.
5. Maintain water level, water quality, and productivity in 30 grow-out ponds totaling 92 surface acres.
6. Harvest, PIT tag, and stock thousands of year-1 razorback suckers into the Gunnison and Colorado rivers in fall.

IX. FY-2002 Work

Labor for tasks 1-6:

Project Leader	20,000
Fishery Biologist (2)	122,000
Biological Technician (1; full time)	61,000
Biological Technician (3; seasonal)	<u>27,000</u>
Labor Subtotal	230,000
Fish Food	16,000
Chemicals and Fertilizer	13,000
Travel	6,000

Equipment and Parts	15,000
Supplies and Miscellaneous	10,000
Vehicles	20,000
Electricity	<u>10,000</u>
	320,000

#### FY-2003 Work

Labor for tasks 1-6:	
Project Leader	22,000
Fishery Biologist (2)	126,000
Biological Technician (1; full time)	63,000
Biological Technician (3; seasonal)	<u>29,000</u>
Labor Subtotal	240,000
Fish Food	18,000
Chemicals and Fertilizer	14,000
Travel	7,000
Equipment and Parts	17,000
Supplies and Miscellaneous	11,000
Vehicles	21,000
Electricity	<u>12,000</u>
	340,000

#### X. Budget Summary:

FY-2002   \$320,000  
FY-2003   \$340,000

#### XI. Reviewers:

Various Service and Recovery Program staff.

#### XII. References:

USFWS (U. S. Fish and Wildlife Service). 1987. Recovery implementation program for endangered fish species in the upper Colorado River basin. U. S. Department of the Interior, Fish and Wildlife Service, Region 6, Denver, Colorado. Six sections. Various pagination.

USFWS (U. S. Fish and Wildlife Service). 1996. Section 7 consultation, sufficient progress, and historic projects agreement and recovery action plan. U. S. Department of the Interior, Fish and Wildlife Service, Region 6, Denver, Colorado. Six sections. 52 pp. + Appendix A.

- Williamson, J. H., and R. S. Wydoski. 1994. Genetics management guidelines. Recovery implementation program for endangered fish species in the upper Colorado River basin. U. S. Department of the Interior, Fish and Wildlife Service, Region 6, Denver, Colorado. 40 pp.
- Wydoski, R. S. 1994. Coordinated hatchery facility plan: need for captive-reared endangered fish and propagation facilities. Recovery implementation program for endangered fish species in the upper Colorado River basin. U. S. Department of the Interior, Fish and Wildlife Service, Region 6, Denver, Colorado. 133 pp.